

CLAIMS

1. A tool insert comprising:

a substrate having a support surface and a support ring extending laterally from the support surface, the support ring being sized to define a recess within the confines thereof and a shelf about the periphery thereof;

a layer of ultra-hard abrasive material located within the recess and bonded to the substrate and the support ring, the layer of ultra-hard abrasive material having a top surface, a portion of the periphery of the top surface providing a primary cutting edge for the tool insert; and

a protective layer bonded to the shelf about the support ring so as to protect the primary cutting edge, a periphery of the protective layer providing a secondary cutting edge for the tool insert, the depth of the protective layer being selected so as to be sufficient to protect the primary cutting edge whilst cutting, milling or drilling through a first substance but to expose the primary cutting edge upon encountering a second substance.

2. A tool insert according to claim 1, wherein the support ring is integrally formed with the substrate.
3. A tool insert according to claim 1 or claim 2, wherein the substrate is a tungsten carbide substrate.
4. A tool insert according to claim 3, wherein the protective layer is formed of tungsten carbide of a different grade to that of the substrate, or of tool steel, or of another suitable material dependent on the first substance to be milled.

5. A tool insert according to any one of the preceding claims, wherein the protective layer is formed *in situ* during the formation of the tool insert.
6. A tool insert according to any one of the preceding claims, wherein the protective layer is formed as a separate ring component which is bonded to the shelf portion of the support surface of the substrate.